

**REMARKS**

**INTRODUCTION:**

In accordance with the foregoing, the specification has been amended to correct an apparent typographical error as noted by the Examiner on page 4 of the Office Action. Claims 18-28 have been canceled without prejudice or disclaimer, and claims 1-3 and 5-7 have been amended to clarify an existing limitation as would have been understood by one of ordinary skill in the art, and have not been amended to narrow the scope of claims. Withdrawn claims 29-37 have been amended to depend from claim 1 as per MPEP 809.

By way of clarification, while the Examiner asserts on pages 2-3 of the Office Action that the applicants have made various admissions as to the invention, the Examiner does not rely on specific statements in the specification or in the Response filed January 5, 2004 that would appear to qualify as an admission. C.f., MPEP 2129 (defining an admission in the context of prior art admissions), and MPEP 1412.01 (defining invention in terms of evidence in specification for purposes of reissue). As such, it is respectfully submitted that, even assuming arguendo that the Examiner is correct as to the number of different methods that can be used and/or that a proper sub-combination/combination election requirement has been provided, the source of any such evidence is not statements in the instant application or the statements of the applicants in the Response that qualify as admissions. As such, it is respectfully submitted that the scope of the inventions as claimed are not limited by the purported admissions.

No new matter is being presented, and approval and entry of the foregoing amendments and new claims are respectfully requested.

Claims 1-17 and 29-39 are pending and claims 1-17, 38, and 39 are under consideration. Reconsideration is requested.

**REJECTION UNDER 35 U.S.C. §102:**

In the Office Action at pages 4-7, the Examiner rejects claims 1-4, 8-17, 38, and 39 under 35 U.S.C. §102 in view of Chu et al. (U.S. Patent No. 5,523,179). This rejection is respectfully traversed and reconsideration is requested.

Among other features, the Examiner asserts that Chu et al. discloses a positive electrode using elemental sulfur. The Examiner does not assert that Chu et al. teaches pores having a size, but instead notes that prior legal precedent interprets the phrase “up to” as including zero such that the claims read on a pore-free positive electrode. While it is respectfully submitted that such an interpretation reads out one or more features of claim 1 and is contrary to claim

construction principles set forth in MPEP 2111 with respect to the interpretation of one of ordinary skill in the art, claim 1 has been amended in order to clarify that the pores as having a size without narrowing the claim. Therefore, it is respectfully requested that the Examiner reconsider and withdraw the rejection of claim 1 as Chu et al. does not disclose or suggest "pores of an average size greater than 0  $\mu\text{m}$  and up to 20  $\mu\text{m}$  having both electron-conductive and ion-conductive properties, where the active sulfur is disposed in the pores during an electrochemical reaction of the lithium-sulfur battery" as recited in claim 1.

Claims 2-4, 8-17, 38, and 39 are deemed patentable due at least to their depending from claim 1.

**REJECTION UNDER 35 U.S.C. §103:**

In the Office Action at pages 8-9, the Examiner rejects claims 5-7 under 35 U.S.C. §103 in view of Chu et al. and Kovalev et al. (U.S. Patent No. 6,652,440). The rejection is respectfully traversed and reconsideration is requested.

Even assuming arguendo that Kovalev et al. discloses the features as set forth in the Office Action and that the combination is proper, it is respectfully submitted that the Examiner does not rely on Kovalev et al. as curing the above-noted deficiency of Chu et al. as applied to claim 1 from which claims 5-7 depend. Therefore, it is respectfully submitted that the combination of Chu et al. and Kovalev et al. does not disclose or suggest the invention recited in claims 5-7 due at least to the combination not disclosing or suggesting the invention recited in claim 1.

Lastly, the Examiner asserts that Kovalev et al. discloses a particle size of the elemental sulfur being 0.1 microns to 100 microns in at least col. 12, lines 7-9. However, Kovalev et al. does not suggest which particle size should be used within this broad range, or which portion of the range is advantageous to use. Therefore, beyond the broad range generally suggested by Kovalev et al., Kovalev et al. does not suggest the specific ranges set forth in claims 5-7 or what advantage exists for any range of sizes within 0.1 microns to 100 microns. Therefore, Kovalev et al. suggests that any particle size within the range of 0.1 microns to 100 microns would have the same or very similar properties.

In contrast and as shown by the Examples in Table 1 of the instant application, the size of the particles has an effect on the life cycle of the resulting battery. There is no suggestion in Kovalev et al. or the remaining prior art that such an effect on life cycle would be expected.

In general, where evidence exists of record that a recited range imparts a novel feature as compared to the general conditions suggested in the existing art, the rejection cannot be

maintained. Specifically and as noted in MPEP 2144.05(III), "[t]he law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims. . . . In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range.' *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)." Additionally, in making a rejection based on the obviousness of a claimed feature, the Examiner needs to account for evidence in embodiments and experiments set forth in the specification that show the non-obvious nature of the feature. *In Re Glaug*, 62 USPQ2d 1151 (Fed. Cir. 2002). It is respectfully submitted that such evidence is of record in at least Table 1 of the instant application such that the broad range set forth in *Kovalev et al.* does not suggest the recited invention in claims 5-7.

**CONCLUSION:**

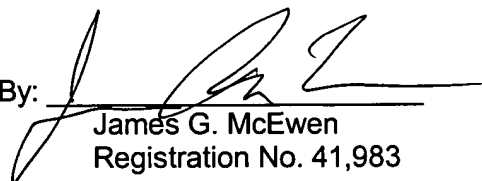
In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, it is respectfully submitted that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any additional fees associated with the filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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